Tourism Research for Biodiversity Conservation

Experiences from the Carpathian Protected Areas

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Tourism Research - Visitor Management

- Visitor behaviour
- Visitor experience
- Recreational use
- Environmental / socio-economic impact

Visitor monitoring

Tourism destination: "carrying capacity"

- Physical capacity
- Ecological capacity
- Social capacity
- Psychological capacity
- Economic capacity

Transition towards sustainability

Biodiversity conservation

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Visitor Monitoring – What for? Visitor characteristics?

- Gender, Age, Education, Place of Living, etc.? 
- Group size, type
- Overnight stays, food, travel costs, other services?
- Visitor profile
- Expenditures
- Activity
- Spatial Behaviour
- Visit duration
- Motives & Satisfaction
- Temporal patterns
- Other
- Motives, Offers, Evaluation & Quality
- Expectations & Conflicts?
- New offers, preferences, Climate footprint, etc?
- Saison, Week, Day?
- How long do they stay in destination?

Mätsahallitus (Erkkonen and Sievänen, 2002)

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Practical examples:
GNSS-Tracking in the Tatra National Park, PL

Photos: Preisel, Taczanowska
Video: GNSS-tracking of visitors
https://youtu.be/y4MYx2RnTDg

Taczanowska (2023) Visitor tracking in the (changing) outdoor environments...
Selected results – Tatra National Park, PL
Selected results – Low Tatras National Park, SK

Selected results – Tatra National Park, PL

*Taczanowska, K; Bielanski, M; Gonzalez, LM; Garcia-Masso, X; Toca-Herrera, JL. Analyzing Spatial Behavior of Backcountry Skiers in Mountain Protected Areas Combining GPS Tracking and Graph Theory. SYMMETRY-BASEL. 2017; 9(12)

Bielanski, M; *Taczanowska, K; Muhar, A; Adamski, P; Gonzalez, LM; Witkowski, Z. Application of GPS tracking for monitoring spatially unconstrained outdoor recreational activities in protected areas - A case study of ski touring in the Tatra National Park, Poland. APPL GEOGR. 2018; 96: 51-65.
Selected results — recreation impact

Based on GNSS-tracks of ski tourers (n = 419)
Selected results – long-term monitoring

Relative change in winter visits in 2020 & 2021 (comparison to 5-year average 2015-19)

- Ski Tour: 361% increase
- Cable Car: 5% decrease
- Hikers: 40% decrease
- Visits All: 21% decrease

Ski Tour shows a significant increase compared to the 5-year average.
Selected results – visitor profiling – attitude towards nature

Visitor profiles (SOM) – Motivation, behaviour, socio-demographic characteristics

Selected results – digital data resources -

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MSc Thesis: D. Ganhör
Supervision: Taczanowska
Synergies – Co-operation - Networking

✓ Exchange / Methods
✓ Data Exchange / Open Data
✓ Dissemination & knowledge transfer
✓ Networking & Follow-up Initiatives

Interdisciplinarity  Transdisciplinarity  Innovation  Co-creation
Participation  Citizen Science  Transition  ...
Thank you!

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